IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A process of hydrodesulfurizing a hydrocarbon mixture, which comprises:

reacting said hydrocarbon mixture containing olefins and boiling within the range of C_4 to 250° C, and having a sulfur content of at least 150 ppm with hydrogen at a temperature ranging from 250° C to 330° C, at a pressure ranging from 5 to 10 kg/cm^2, at a WHSV ranging from 2 to 6 hours^{-1} and with a quantity of hydrogen ranging from 200 to 400 times the quantity of hydrocarbons present (N1/l) in the presence of a catalytic composition comprising:

a) an acidic carrier consisting of a silica and alumina gel, amorphous to X-rays, with a molar ratio SiO_2/Al_2O_3 of 30/1 to 500/1, having a surface area ranging from 500 to 1000 m^2/g, a porosity of 0.3 to 0.6 ml/g and a pore diameter within the range of 10-40 Å; and

b) a mixture of molybdenum and cobalt deposited on the carrier in an overall quantity ranging from 2 to 67 % by weight with respect to the total amount of components (a) + (b), thereby effecting said hydrodesulfurization with concomitant skeletal isomerization of the olefins of said mixture under the hydrogenation conditions of the process which results in a ratio HYD/ISO ranging from 0.7 to 2.5, wherein HYD is the ratio of non-isomerized olefins, that have been hydrogenated, to olefins in the hydrocarbon mixture and ISO is the ratio of isomerized, hydrogenated and non-hydrogenated olefins to the sum of isomerized, hydrogenated and non-hydrogenated, olefins and non-isomerized, hydrogenated and non-hydrogenated, olefins.

2. (Original) The process according to claim 1, wherein the acid carrier of the catalyst has a ratio SiO_2/Al_2O_3 ranging from 50/1 to 300/1 and a porosity of 0.4 to 0.5 ml/g.

Claims 3-5: (Canceled).

6. (Previously Presented) The process according to claim 1, wherein molybdenum is present in a quantity ranging from 5 to 50 % by weight with respect to the total of the carrier and the mixture of metals and the metal of Group VIII cobalt is present in a quantity ranging from 0.5 to 10 % by weight with respect to the total of the carrier and the mixture of metals.

7. (Previously Presented) The process according to claim 6, wherein molybdenum is present in a quantity ranging from 8 to 30 % by weight and cobalt is present in a quantity ranging from 1 to 5 % by weight.

8. (Previously Presented) The process according to claim 1, wherein the molar ratio of cobalt to molybdenum is less than or equal to 2.

9. (Original) The process according to claim 8, wherein the molar ratio is less than or equal to 1.

10. (Previously Presented) The process according to claim 1, wherein the silica and alumina gel carrier is in the form of an extruded product with a ligand.

11. (Previously Presented) The process according to claim 10, wherein the ligand is selected from the group consisting of aluminum oxide, boehmite and pseudoboehmite.

12. (Previously Presented) The process according to claim 10, wherein the silica and alumina gel carrier and the ligand are premixed in a weight ratio ranging from 30:70 to 90:10 and consolidated into the desired end-form.

13. (Previously Presented) The process according to claim 10, wherein the silica and alumina gel in extruded form is prepared as follows:

a) preparing an aqueous solution of a tetraalkylammonium hydroxide (TAA-OH), a soluble compound of aluminum capable of hydrolyzing to Al_2O_3 and a silicon compound capable of hydrolyzing to SiO_2, in the following molar ratios:

SiO_2/Al_2O_3 from 30/1 to 500/1;

TAA-OH/SiO_2 from 0.05/1 to 0.2/1;

H_2O/SiO_2 from 5/1 to 40/1;

b) heating the solution thus obtained to cause hydrolysis and gelation thereby preparing a mixture A with a viscosity ranging from 0.01 to 100 Pa sec;

c) adding to the mixture A first a ligand belonging to the group of boehmites and pseudoboehmites, in a weight ratio with the mixture A of 0.05 to 0.5, and then a mineral or organic acid in a quantity ranging from 0.5 to 8 g per 100 g of ligand;

d) mixing and heating the mixture obtained in step (c) to a temperature ranging from 40° to 90° C until a homogeneous paste is obtained, which is subjected to extrusion; and

e) drying the extruded product and calcining the dried product in an oxidizing atmosphere.

Claims 14 and 15: (Canceled).

16. (Previously Presented) The process according to claim 1, wherein the hydrocarbon mixture which is subjected to desulfurization contains more than 600 ppm of sulfur.

17. (Currently Amended) The process according to claim 1, wherein the hydrocarbon mixture which is subjected to hydrodesulfurization is a mixture ~~that boils~~ that boils within the range of C_5 to 220° C.

18. (Previously Presented) The process according to claim 1, wherein the catalyst is activated by sulfidation.

Claims 19-26: (Canceled).

27. (Previously Presented) The process according to claim 1, wherein the hydrocarbon mixture is a full range naphtha having a boiling range of 35° -250° C.

28. (Currently Amended) A process of hydrodesulfurizing a hydrocarbon mixture, which comprises:

reacting said hydrocarbon mixture containing olefins and boiling within the range of C_4 to 250° C, and having a sulfur content of at least 150 ppm with hydrogen at a temperature ranging from 250° C to 330° C, at a pressure ranging from 5 to 10 kg/cm^2, at a WHSV ranging from 2 to 6 $hours^{-1}$ and with a quantity of hydrogen ranging from 200 to 400 times the quantity of hydrocarbons present (N1/l) in the presence of a catalytic composition comprising:

a) an acidic carrier consisting of a silica and alumina gel, amorphous to X-rays, with a molar ratio SiO_2/Al_2O_3 of 30/1 to 500/1, having a surface area ranging from 500 to 1000 m^2/g, a porosity of 0.3 to 0.6 ml/g and a pore diameter within the range of 10-40 Å; and

b) a mixture of molybdenum and cobalt deposited on the carrier in an overall quantity ranging from 2 to 67 % by weight with respect to the total amount of components (a) + (b), thereby effecting said hydrodesulfurization with concomitant skeletal isomerization of the olefins of said mixture under the hydrogenation conditions of the process which results in a ratio HYD/ISO ranging from 0.7 to 2.5, wherein HYD is the ratio of non-isomerized olefins, that have been hydrogenated, to olefins in the hydrocarbon mixture and ISO is the ratio of isomerized, hydrogenated and non-hydrogenated, olefins to the sum of isomerized, hydrogenated and non-hydrogenated, olefins and non-isomerized, hydrogenated and non-hydrogenated, olefins and which results in a ratio HDS/HYD of at least 1.9, wherein HDS is hydrodesulfurization conversion and HYD is as defined above.